

Active Interleukin 2 (IL2)

Instruction Manual

SBPA047Hu01

Homo sapiens (Human)

Buffer Formulation

20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose and Proclin300.

Traits

Freeze-dried powder

Purity

> 95%

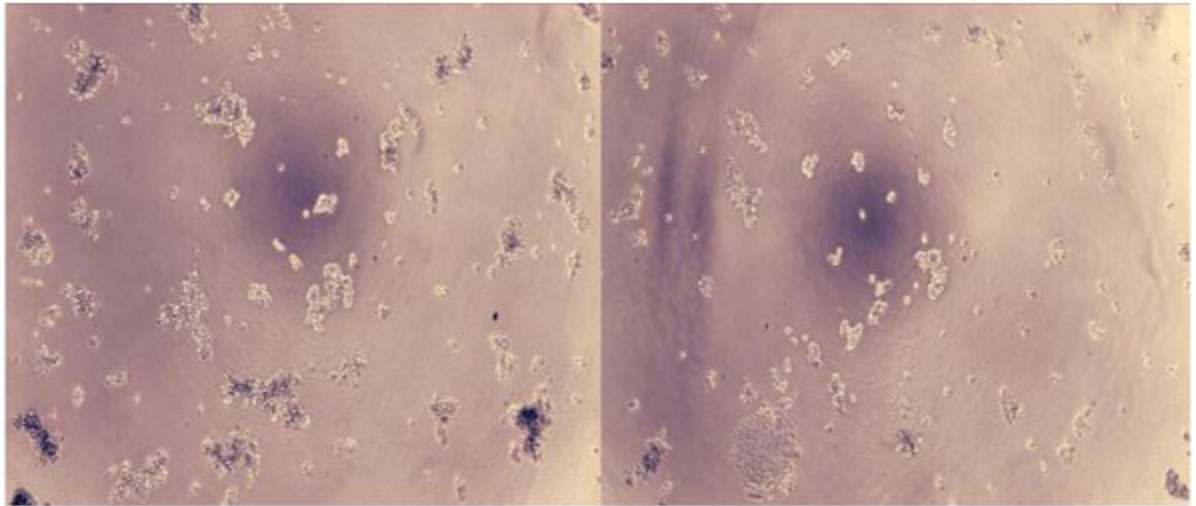
Isoelectric Point

6.8

Applications

Cell culture; Activity Assays.

ACTIVITY TEST



A

B

Interleukin-2 (IL-2) is an interleukin, a type of cytokine signaling molecule in the immune system. IL-2 has essential roles in key functions of the immune system, tolerance and immunity, primarily via its direct effects on T cells. In the thymus, where T cells mature, it prevents autoimmune diseases by promoting the differentiation of certain immature T cells into regulatory T cells, which suppress other T cells that are otherwise primed to attack normal healthy cells in the body. IL-2 also promotes the differentiation of T cells into effector T cells and into memory T cells when the initial T cell is also stimulated by an antigen, thus helping the body fight off infections. To measure the effect of IL-2 on cell proliferation, CTLL-2 cells were seeded into triplicate wells of 96-well

plates at a density of 2,000 cells/well with 2% serum standard 1640 contain various concentrations of recombinant human IL-2. After incubated for 96h, cells were observed by inverted microscope and cell proliferation was measured by Cell Counting Kit-8 (CCK-8). Briefly, 10 μ L of CCK-8 solution was added to each well of the plate, then the absorbance at 450nm was measured using a microplate reader after incubating the plate for 1-4 hours at 37°C. Proliferation of CTLL-2 cells after incubation with IL-2 for 96h observed by inverted microscope was shown in Figure 1. Cell viability was assessed by CCK-8 assay after incubation with recombinant IL-2 for 96h. The result was shown in Figure 1. It was obvious that IL-2 significantly increased cell viability of CTLL-2 cells.

(A) CTLL-2 cells cultured in 1640, stimulated with 10ng/mL IL-2 for 96h;

(B) Unstimulated CTLL-2 cells cultured in 1640 for 96h.

Figure. Cell proliferation of CTLL-2 cells after stimulated with IL-2.

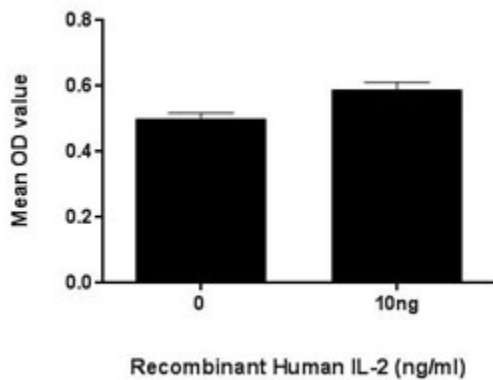


Figure. Cell proliferation of CTLL-2 cells after stimulated with IL-2.

USAGE

Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.

STORAGE

Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.

STABILITY

The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no

obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

Image

CGCTATTGCTTCAGCAGAACGCTCACTGAGATTACTGCTGATTGAGTATTGATGATTAATTCAGAGATTCACTGACGAGTCTGAGTTTACTTTCATGCTCCGAGAGCTGAACTTTGTCGTGAGAGACTTAACTTGTGAGAGTAAATGCTCACTAACTT
A P T S S S T K K T Q L Q L E H L L L D L Q M I L N G I N N Y K N P K L T R H L T F K F Y M P K K A T E L K H L Q C I E E E L K P L E E V L N L A Q S K N F

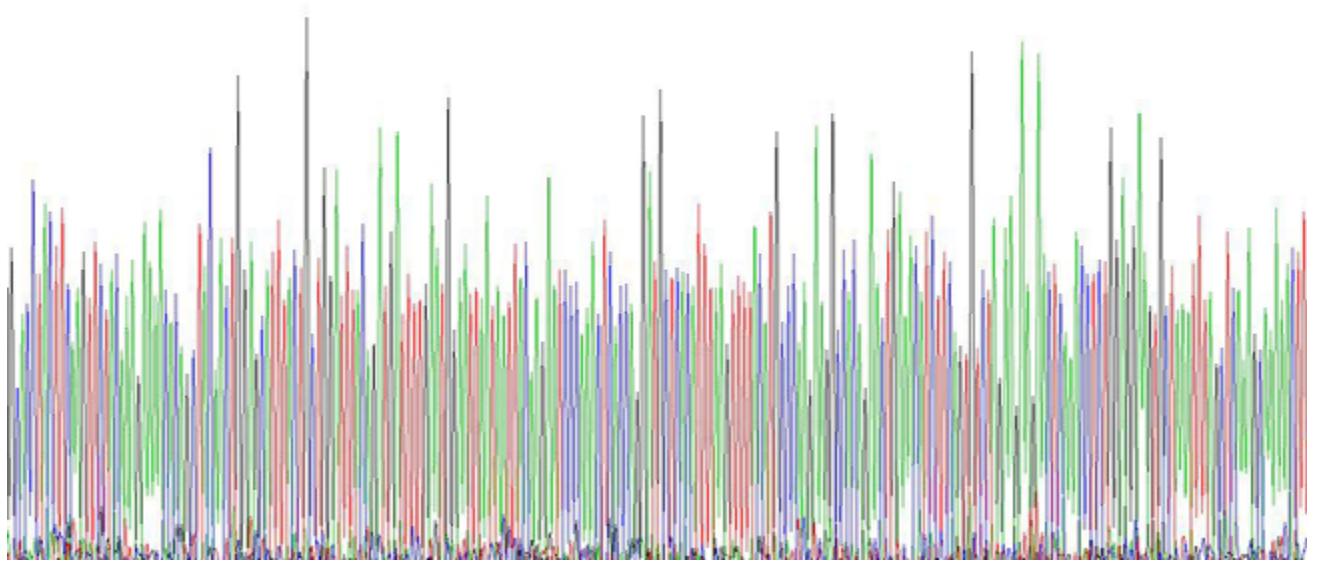


Figure. Gene Sequencing (Extract)

Image

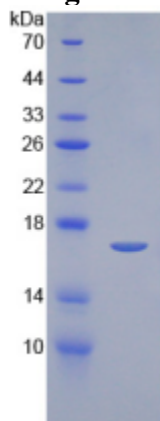


Figure. SDS-PAGE

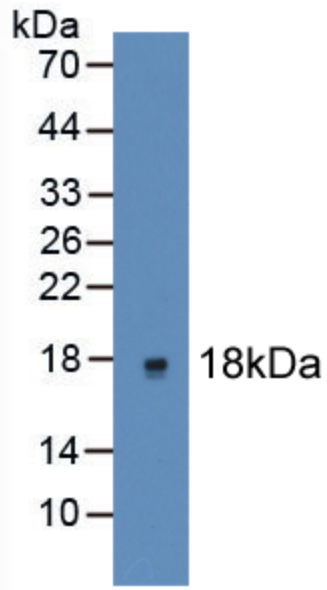


Figure. Western Blot

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.